

Oko B 916

Muscatine - 1916
Muskogee - "1916
Muscatine Co - "
Muddy face cat
Crete - 1917
Hamburg - "
Alair - "
Dune Park - 1916

Greene - 1917

Alair

Ames

66



66

Muscatine 1917

Dune Park 1916

Note Book

No. 312

B. Shimek
Iowa City
Iowa
529 Brown St.

July 31, Mon 1916

Aug. 1, Tuesday

Aug. 2, 1916 Wed.
Worked at plant all A.M.
In afternoon walked N.W.
at hillside (a) sec. 22,
took plot (7) looking NW
over cattle hole & oat
field across towards
DeMuth's house
Took part of same cattle hole,
looking E. at marshes
(Photo no. 8). There was a
huge snapping turtle on
the bank.

Grazing contains *Polygonum*
sibiricum, *Lemna trisulca*,
& esp. large *Polygonum*
umbellatum (L.), *Martynia* (fl.)
Calamus rotundus (Fr.) &
Phragmites (Fr.).

Utricularia (fl.) is abundant
out in water.

The ground shows several
years of vegetation?

center full of
water, mud, etc.
and of *Urticaria*
virginica
Sisyrinchium

Photo 9 - *Gentiana*
Heuchera grossularifolia
Calamagrostis & *Rhus glabra*
Polygonum multiflorum.

Photo 9 is a small pig-rubbed
butterhole just S. of house.

Photo 10 - S. E. side of Carex
magnifica butterhole
Stock & tile.

No. 3 - N. E. shore of same
butterhole (Carex magn.)
showing belt of
Hydrostachys

The slope at the W. end
of this hole has *Cyperus*
valdensis in deepest water,
then much *Cyperus*
rotundus, then *Cyperus*
alternans, then *Equisetum*
& then *Kalmia*
herbacea. Then
Prunus.

Photo 4 shows the W. in
meadow cut off by fence
no stock - On E. side
is base shore, 2 stock

Photo 11. Barley in shock
looking N.E.

Photo 12. One shock looking N.E.

Right N. of Schenck's
house, 1/2 mile from
the butterhole is a border
around broad margin
with *Cyperus valdensis*
& *Ziziphora capitata*.

S. of road there is
no open water.

covered with *Sium*
circinatum, *Calamus*,
etc. also *Cicuta*
maculata in fruit.
Scirpus is in flower,
Lush grass, and
Compound leaves,
The small little hole East,
on S. side was a crowded
with *Scirpus fluviatilis*,
while on N. side are
Cicuta maculata etc.
the large one just W. of
school has *Scirpus*
validus in deep part,
then *Hippuris vulgaris*,
then *Scirpus fluviatilis*,
then *Calamus rotundus* &
Polygonum, then
Sparsina.
In open part *Utricularia*
that part of big hole west
of school which is East
part S. of road, is

full of *Cicuta maculata*, etc
Photo 23 - wheat field just
W. school looking N.E. & W.
Photo 24 ~~Oats field S. of~~
~~school~~ 1 wheat stalk.
Photo 31 ^{looking S.W.} oats S.E. of school
Photo 32 1 stalk oats
Photos 22 & 30 - School & only
breeding red beanie
grass (mostly *Agrostis*)
at window - *Asparagus*
Photo 15 - looking N - compound
S. of school.
Photo 16 - same from
road leading S.
Photo 5 - drain little hole
East school, N.E. of turn N.
Overgrown with
Elymus canadensis
Polygonum
Betula nigra ground
coverly part

Outs have been seen here,
but doesn't amount to
anything you can hardly
see it when in full

Photo 6 - the small
drained little lake
N.E. from last, just
W. of road.
Shows same condition
as in (5).

Photo 21 - N.E. from Eriogonum
little hole.

Photo 22 - S. edge of
Ceratidium zone

Photo 1^{1/2} - W. of S. across
drained little lake -
coarse dark gravelly

A very hot, close day,
somewhat hazy with
little winds.

Returned to camp & found
Miss Maxwell.
Spent evening in writing
and reading.

Aug. 3, Thursday
Stormy in morning.
Took care of plants all
morning.

In afternoon went to
canal & to sand spit with
Brook & Miss Maxwell.
Found floating sheephead
which had choked trying
to swallow a perch.
The sheephead was 4.7
centimeters long & 1.7 dm.
wide (counting dorsal fin)
The perch was 1.7 dm. long.
Took photos - 9 & 10 of
fish.

Aug. 4, Friday

Left at 7 am. for Orleans,
with Mr. Post & Mrs. Langwell.
Got off at Burns Lake &
walked to Orleans.

Collected on beach &
boggy roads to SW of
Orleans.

Found many *Lymnaea*
modesta on flats from
remains of head when
excavations were made
for fish trapping.

Found *Succinea retusa*
very abundant along
narrow beach & against
low bank at head of
East Lake.

walked to Spirit Lake
& took the Des Moines trail.
Drove at Spirit Lake
dock.

Aug. 5, Saturday

Rained heavily at night.
Spent forenoon in breaking
checks from my board
traps at the Lab. & the
spring.

At 1:30 pm. took launch
for Ignace Park
Mr. Post, Mrs. Langwell
& I collected on beach
& then went by road to
Lake. Also collected on
prairie S. of beach
Left in time for the
bird band party.
Found *Cannithon*
water.

Mr. & Mrs. Cratty came
about dark.

1916

Aug. 6 Sunday
 Left at 5 am, crossed
 in launch to Hayward
 Bay & walked to Blind
 Lake.
 Collected a few aquatic
 plants on hill south
 of Blind Lake (poor).
 Met the folks (Mrs &
 Miss Cavanagh) at
 Blind Lake & went
 to Lakeville. There
 Mr. & Mrs. Cratty were in.
 Mr. Cratty showed
 Carex Crawfordii from
 Blind Lake (also summer
 C. sphaerocephala) &
 Carex assinibone from
 Grinnell Co. I saw
 also Drosophila)

Spent afternoon in visiting
 & taking care of materials.

With Cratty, many new & rare plants

Aug. 7 Mon.
 Rained a little at night.
 In morning took boat
 to Estero & Spring -
 In afternoon went to
 Cove & Gull Pt.
 Found Wolffia very
 abundant in Duckmarsh
 marsh.
 On Gull Pt. (Sand)
Altissima ciliata, fl.
Artemisia ludoviciana
Gutierrezia cypripedium
Pentstemon grandiflorus (fr.)
Oxybaphus paniculatus
Ambrosia leptophylla
Allium stellatum
Carex macrocephala
Ophioglossum delphinoides (?)
Amorphophallus fulvus
Potentilla pentaphylloides
Rhus glabra (introduced by)
Andropogon scoparius
Lactuca — (rare)

Stipa spartea L. or
Cyperus Johnsonii
~~Poa~~ ~~Littoralis~~ *corporata*
Salix longifolia D. C.
Spiraea betulifolia
Polygonum brachylobum
Phragmites communis H.
Lycopodium vulgare L.
Ridderia fragilis J. M.
Impatiens parviflora
Aster v. leptocephalus
Eriogonum canescens
Salix cordata L.
Symphoricarpos occidentalis
Aquilegia (L.) Benth.

Found fine Clavaria in
woods - see spec. & photo.

Aug. 8 - Tues.
Cattley & Ella left at
7 am. Went A.M. in
afternoon for material.
P.M. went to Green Slough
(by Land).
Collected *Wolffia*. Also
appeared on *Porella angustifolia*
Photo 25. Show E. side
of Grinnell's (Green) Slough,
Cooking St. & D.
Photo 26. Showing N. edge
E. side of Green Slough.
Along shore is *Verbena*
hostata. To right of
gap is a lot of
Verbena stricta,
among them - especially
between are the
hybrids.
Photo 3- *Cirsium canescens*
clump near Green Slough.
Photo 4 - Green Slough
near road.

Walked back to the Lab.
& spent evening in
caring for materials.

The day was quiet &
bright. Good
for photos.

Aug. 9 - Wed.

Aug 10 - Thurs.

Rained at night.

In morning I gathered
snail from under boards
at pumping house &
spring.

Had ride with Judge
Judge Hutchinson to
Equalizer. Discussed
legislation for lakes.

Had review of legislation

which promised aid.

Aftnoon, worked
at plant & the
warehouses in Lab.

Dredged in the Bay
at depth of 8 meters,
lost part of rope
with bidon.
Worked rest of time
in Valley.

Aug 11 Fri.

Went S of mail box

Gather fine Empetrum purp.
& Aster umbellatus in
swamp W. of mail box

Photo 21 Prairie S. f. mud
box, Custer S. Meadow part
is cut.

Photo 22 Similar - a little
west.

Caught many frogs on
upland prairie. They
probably scatter out to
feed.

Returned to care for
materials.

Spent most of the
remainder of the day
at Chipping dress,
putting away
materials, etc.

From that Orleans
material had not
been straightened, &

much of it was rain.

In afternoon I asked Miss Maxwell to work out prairie plants in front laboratory, for the purpose of becoming familiar with plants of that type.

Towards evening a storm came up from S. & we put up blinds in dormitory. The night was very stormy and rainy.

Brock had gone off to Corralo, and I may left. He had fine making of cable by meters,

Aug. 12-1916 - Sat.
Spent forenoon on 2nd Lookout
Collected seeds of *Castilleja*,
Scroph & *Oxytropis*.
Former had little brown
beetles.

The prairie on Lookout
was cut for hay. The
second Lookout is still
intact.

From prays on *Doswellia*
microcarpa & *Petalostem candelabrum*.
Collected *Habenaria* *angulifolia*
in bush.

Afternoon went to Cove &
Hill St.

Took photos of fairy ring of
Leptotrichia *longigaster*.

Ring 15 ft in diam.
There were about 140 fungi
& there about 35 were
fresh.

Nearby is an imperfect
ring of big puffballs (*Mycenaean*)

probably 30 ft. in
diam.

Photos 1812 show
Didemnum slugs with
Wolffia in all between
shore grasses (*Calamus*,
Sparganium, *Carex* sp., etc.) & "the Sagittaria
in water. Beyond
Sagittaria is deep water.
The day was bright, but
very windy.

Collected materials on
Grill Pt. for phytology,
also seeds.

Retained & cared for
materials rest of afternoon
& evening.

The water was so rough
that at edges it was
windy.

Aug. 13 Sunday

Spent forenoon in arranging
materials.

At 1 PM Mr & Mrs Kinsell &
states for hour of lake we
went to Arnold Park first.
At W. Chelozine's family was
walking long. Used a block
rake, with scow & van
the muckers with a Ford!

Met Mr Hanna.

Went by rail to Greenup,
then via the trolley down to
Arnold's Park. Then Chelozine
& Son. They were working in
Marshall & Muller's Bay
large crowd of men & women
of Arnold's Park.

If drawbridge a long
line of auto waiters & other
motor vehicles were through.
Day cool & pleasant.

Aug. 14. Mon.

Rained this morning.

Took care of wildcats.

Blistery & not
pleasant to eat.

(Kingsbridge, New Haven
Conn., New Haven, Connecticut
In afternoon went to Arnold
Park & walked along new
short trails through Park.

Cryptog. LVII, LVIII, LIV
LVII, LVI, LVI
are largely affected
by Rostellaria. Tree LVII
is almost dead; lower down
all gone - upper yellow &
brown, mostly dead.

Firs Gymnopompon are
as on tree (small) on bank
above.

Cryptog. P. of LIV (C. punctata)
is hardly affected (see page)
also C. mollis N. of
LII. The latter (LII) is
also affected, but broken.
A double Cryptog.
punctata S. of LII
is almost dead - Rostellaria
this is XLIX

Isles Thruway (?) in
green foliage.
Some Vaccinia fasciculata
in considerable number on
f. fuscum.

Spent evening in carny for
museum & visiting.

Aug. 15, Tues 1916

Spent part of AM in
bay & along canal
Found following on banks
along canal:

Zosterisessor nitidus

Tetraeum hamatum

Alurus angustifrons

Cathartes aura

Macroura rufa

Collette marsh bird.

In afternoon took

photos

Photo 33 - Boys' club,

looking N.

Photo 34 - Boys' tents,

looking E. of N.

Photo 35 - Indian break-
fast, etc.

Photos 36 - from the break-
fast, etc.

Photo 37 - Bay houses

Labat's residence

Photos 38 - in N.E. ad. Downton

Spent some time at spring
with Miss Maxwell.
Went in morning.

Aug. 16 Wed

In forenoon went to marsh
with Mrs. Vaughan &
Maxwell. Collected mulberry,
moss & parasitic fungi.

Mr. & Mrs. Shoultz went
to Shint Lake.

In afternoon went to
Baywater Bay by Des
Vergnes, with Knobbs, French,
Whittle, Miss Vaughan, & Vaughan.
Collected moss, lichen, etc.

The day was hot & dry.
The last side is drier
than wood or W side.

Returned from Dorn &
spent evening with Ewer
etc.

Took photos of Cedar trees, etc.

Aug. 17, Thurs. 1916

Stormed at night - heavy rain.

Spent forenoon examining materials along highway in afternoon went west to Edwards Park by W. S. E. afternoon sunny but -

evening sultry & cloudy we did a little shopping and then returned with Miss Holiday & Mr. Evers by auto.

Spent evening at Evers' with Strudener & French.

A hot evening, really uncomfortable in early part of evening.

Aug. 18 - Friday

Went to bank of lake with Ma, took photos.

No. 11 - Ditcher west of W. O. Hobson

No. 12 - small kettlehole " " " crowded with *Polygonum multiflorum*

No. 13 - fishing at prairie bushes just N. of Edwards' looking W. of S.

No. 14 - Little creek (creek) w. of bush

No. 15 - planted trees

No. 16 - same swamp 2 uprooted trees

Poa *sculpta* breaks off whole plant is a "tumble weed".

No. 17 - looking a little E. of N from road - prairie bush above Edwards

No. 18 - looking N. at swamp just west of bush.

No. 19 - " " " " "

No. 20 - Bush at Edwards, looking W.

No. 15 - Edwards Beach Colby &
No. 16 - Acorn, (bushy) & Sagittaria
(fore) - N.E.

No. 15 towards Edwards Beach
from Acorn swamp - N.E.
No. 16 - with H. near Colby
& Sagittaria swamp.
Row of beach - a series of
boulders.

No. 25 - See across from
Acorn swamp - little

No. 26 - N.E. across
lower Acorn swamp
selected in in time to
get dinner. Mrs. Archer &
Mrs. White had dinner.

At 1 P.M. took boat for
Arnold's Park with
Bob, left Arnold's
Park at 2³⁰ & waited
at Shenson until 5⁴⁵
for train for Sanborn
& Carlton. Reached Carlton
at 9 & put up at the Reddick

Aug. 19 Sat 1916
Arose at 4:30 took breakfast
at RR & went to hills of hills.
The eastern strip which runs
gradually from the native
prairie just across was to
east of RR. Has only a few
trees like Verben strum,
Amelanchier canescens, Grindelia,
Urtica dioica, Angelica, Common
milkweed, etc. The prairie slopes (W)
all the rocks in the
towards Rock Station
are boulders.

Worked near border near Rock
Station. Then took boat
about 40 ft below border.
Ran down about 30 ft then
border about a way above
border of beach below.

There are few lichens
in the higher woods
at about 550 ft below
under a little sprig
had 3 Green Ash &
Bur oak & No other ^{there}
arow. if I'm not ^{there} the
lichen faces the sprig
mainly, & small & of
from lower & above on of
small & low & about 40°
of under side down
less abundably
Then follow a more
gentle descent to
soil on land & grass
but station 1 is under folld
& Basswood & Bur oak
& Red oak lawn. Pines yards
& Cropland & grass
& Larch lawn & grass
& Red oak with sprig
Caragana am.
Lyonia & Spruce

For comparison with upper
area -

Symphoricarpos

Ribes

Basswood tree & L.

For transition

Symphoricarpos

Bur oak

Erythronium

2 = (middle station)

Red oak

Quercus

Bur oak

Ostrya

Populus

Ribes

Leptodora

From the station 2 or 3
down & as we move it up

to within 2-5 ft of border

Some tree plants which were
less floriferous than usual & were with:

* *Nemurus*

* Red oak & Ribes plants

Basswood & symphoricarpos wood

* *Mitchella*

Lathyrus virginicus
Sporophorus heterostachys
x *Basswood*
+ *Ferns*
+ *Trees*
Celtis
+ *Cornus* *americana*
+ *Polygonum laeve*
Smilacina pallida (Dabies)
Geum urbanum
Chrysanthemum
+ *Calochortus* (tall & spangled)
+ *Monarda fistulosa*
+ *Zizia glauca*

Trifolium repens
Erophila verna
Sympetrum
Verbena stricta

Prairie near Cedar's station
Helianthus scaberrimus fl.
Cirsium canescens fl.
Elymus canadensis fr.
Eriogonum canescens fl.
Pectis alba fl + fr.
Hordium jubatum fr.
Bromus riparius fr.
Astragalus ciliatus fl
Grevillea mucronata fl
10 *Stipa capillaris* com fl.
Populus tremuloides fl.
Scirpus cyperinus fl
Astragalus fuscopurpureus fl.
Liatris scariosa fl
Amorpha canescens fr
10 *Acacia cylindrica* fr
Hedysarum occidentale obs fr
Actaea peltata nigricans? fl
20 *Oxybaphus brachycarpus*? fl.

- Pistia stratiotes*
 24. *Schmidia cordata* (see also)
Petalostomum perenne H.
Kalanchoe daigremontiana L.
Oxybasis ambigua L.
Ceratostigma plumbaginoides
Lathyrus palustris L.
 30. *Calystegia soldanella* L.
Eruca sativa L.
Anthriscus foliosa Voss
Aconitum napellus L.
Molinia caerulea L.
 35. *Vitis rotundifolia* L.
Actaea spicata L.
Alchemilla vulgaris L.
Urtica dioica L.
 40. *Oenanthe aquatica* L.
Erophila marginata L.
Sympetrum sanguineum occidentale
 45. *Artemisia artemisioides* L.
Urtica dioica L.
 45. *Geum urbanum* L.
Geum canescens Boiss.
Achillea millefolium L.

49. *Isopyrum thalictroides* L.
 50. *Dasydixia pratensis* L.
 51. *Polygonum candidum* L.
 52. *Carex stans* L.
 A low colony at edge of grass
 cut, showed 57 days of
 growth, minimum 1 ft
 from ground over a plant
 7 in.
-
- In lower basin near
 Pfeiffer bridge:
 5. *Agrostis capillaris*
 1. *Andropogon furcatus*
 3. *Bouteloua curtipendula* L.
 6. *Festuca rubra*
 2. *Lyngbya nodulosa*
 4. *Panicum capillare*
 5. *Polygonum Malacoides*
 6. *Ruppia maritima*
 7. *Scirpus nodosus*
 8. *Sesuvium portulacastrum*
 9. *Luzula uliginosa*
 10. *Lesq. leucophloea* L.
 11. *Artemisia ludoviciana*
 12. *Eriogonum fasciculatum*
 13. *Galium (Pyrola) pyrolaeum*
 14. *Polygonum canescens*
 15. *Polygonum verticillatum*

Croton coryni
Baccharis occidentalis
Psoralea argophylla
Aster sp. elegans
Achillea millefolium
Dipsacus fullonum
Rosa -
Monarda mollis
Ischaemum undulatum
Cortaderia selloana
Pennisetum glaucum
Andropogon glomeratus
Eriogonum sp.
Elymus canadensis
Hordeum murinum
Lysimachia clethroides
Ptilotrichum punctatum
Desmodium paniculatum
Heliotropium curassavicum
Gennaria canescens
Bridelia missouriensis
Gutierrezia sarothrae
Agave deserti
Allionia sessiliflora
Schoenoplectus acutus

Arenaria virgata
Thlaspi sp.
Myrsinaceae species
Crithmum americanum
The most wire in rather
open border.
The grasses form the greater
part of the vegetation, especially
Andropogon glomeratus, Ischaemum
undulatum and Desmodium
and Pennisetum glaucum occurs
in large patches.
High ground has been
settled and strip.
The animals are mostly
from Book's report.
The plants make flat
pasture more common. Those
on hill are shrubby.
With them at 1250 for
most part.
The day was cloudy and stormy
but a strong wind was wady
leaves at border wild & cut,
especially under leaves of

Red cedar, Green ash &
Basswood. Smaller
plants written, as noted.
The afternoon was clear
and hot.

Get bananas a little
at a time this evening,
a few nights before last.
Met Mr. Henry and
a lot of Lilium's
occidentalis.

Aug 20, Sun
Spent most of day in arranging
& labeling material.
In afternoon took photos
1 & 2 Osmunda in culm ^{s. lat}
also four of Rhus glabra
asleep.
Spent in bathing.
The day was clear
and quiet, & hot.
In evening I wrote
letters & arranged
my papers.
Didn't get to bed
until about 2 o'clock
A.M.

Aug. 21, Mon.
Windy & cloudy,
blustery rain.

Blow a gale all
day & cleared up
only faintly.

Went to head of lake
with Frank, Strong,
Dish, Whittle &
Miss Maxwell.

Went to the prairie
N. of West Obozzi &
collected eggs on
Elymus, Rudbeckia,

In the bogs I found
fruiting *Habenaria*,
Leucophaea, *Lilium*,
& flowering *Gentiana*,
Crinita. Latter also
in bog just S. of
W. Obozzi.

Then worked along
row of willows at
abutment W. of

Edwards's, & found
many lichens on the
willows (*Salix fragilis*?)
and mosses both on
willows & sandy
ground.

Then dredged in lough
W. of Edwards's & by
sweeping *Lemna trisulca*
mass I got a few
large Planariae, also
a few Plan. excreta,
a good many Plan. albus
& *Phrya* rays (the
latter with other
animals) also a few
Anomidae.

By dredging on latter
I got a few large
Aplexum.

Returned after 4 P.M.
worked on material in the
evening.

Aug. 22 - Tues
The day was cloudy &
foggy in the morning.
It had rained some at
night. Spoke up
trip to Second Lake &
worked on it as on material.
Also made dryings down.
The afternoon was clear.
but cloudy evening until
evening which was
comparatively calm.
It was cool all day.
Most worked on samples
as I could find.
Spent evening in
arranging materials.

Aug. 23, Wed.
Day fairly clear, not very windy,
warm.
Left at 7 AM for Orleans & took
row boat & dredged (with French
& Welsh.) Miss Evans & Maxwell
walked along lake shore & Bradham &
Whittle did sweeping.
Dredged in Third Lake.
No. 1 - Diatoms, etc. at a depth
of $5\frac{1}{2}$ M. N. of Hotel Orleans
No. 2 - Mollusks from no. 1.
No. 3 - Vial - surface to very
near same place.
No. 4 - Vial - surface
farther North
No. 5 - Diatom - off Story Pt.
about $\frac{1}{2}$ way across to west
& a little North. 7 M. dep
No. 6 - Surface to very
near no. 5
No. 7 - Diatoms, etc. 7 M. about
 $\frac{1}{2}$ way from W. of Story Pt.
also package.

No. 8 - Surface tree on
way to 7.

No. 9. Straight W., about
 $\frac{1}{4}$ way E. from W. side.
Depth 7 m.

No. 10 abt. about 400 yds
E. of Zephyr Park
7 m.

No. 11 - N.W. of Orleans
6 M.

at the Des Moine
landing N. end of
bed Oologah
oblong 3 rats of
Rivulet by
today from boat.

Return to Orleans & took
dinner at 3^o

Aug. 24. ~~Cloudy~~
a little windy cold,
in morning. Day clear
& cool.

In morning went to Elm
Crest wood,

Collected *Pansitii* fungi
& prairie plants in the
open bar oak wood E. of
canal.

From *Diplolepis* *flexuosa*
in fruiting. One plant.

Collected leaves etc &
across of scrub bar
oak E. of canal - about
 $3\frac{1}{2}$ ft. high.

Spent afternoon in caring
for materials.

Sat up late.

Aug. 25, Fri. 1916

Calm, clear morning.

Night was cold.

Work finished.

Spring

Ambrosia trifida

Black Locust trees

Hosts

Black locust trees

dark Gray-green &

other ever.

Lab. - looking NW

College - SW.

Started for Gar

Lakes west of $\frac{3}{4}$.

Treach, River Cough,

Maxwell, Hastings &

Meader, Stromton,

Whittle, Dark

Buchanan.

Meade slightly cloudy.

Collected *Ruegala diaphana* -
mostly at very base of Nephth
leaves & stem.

Collected Lichen's fungi on E.
side Lower Gar.

Photo 9 - looking SW (toward
mtns) across river and
of Lower Gar. Rude in fore
Photo 10 - same.

Photo 15 - looking NW.
across river Gar.

A threatening storm drove
us home. Rained a little.
Miss Carruth found a
number of new mosses -
particularly on the southern-
most bank (wooded) near
outlet of Prairie Lake
entrance. It is seedy
here.

Stormed a little
when we got home.

Beautiful clouds - mostly
dark but in combination fine
expansive.

Aug. 26 - Saturday
Spent forenoon in
caring for materials,
after taking Miss
Maxwell to Arnold's
Park in the morning.
A very cold morning,
the sunrise was beautiful.
In the afternoon went
to Arnold's Park in
the Des Moines & walked
along Upper Dr.
Found seeds & fungi &
Miss C. collected moss.
Returned & took the
Des Moines. A German
American couple aboard
had a boy of 5 or 6.
He misbehaved a little
& his mother in reprimanding
him said: "Was will
der Kaiser sagen?"
She was evidently more
German than American.

Fell asleep after supper
Went to bed early, but
first viewed the
remarkable Aurora
borealis. Sheets of light
shot out like from
huge search lights &
extended far both
of the zenith.
This was the finest
aurora I ever saw.
The wavering & shooting
out of streamers
were its most striking
characteristics, and
from its size & extent,
this is certainly
worth remembering.
The night was very
cold, - the coldest
we have had so far
up here during this
summer.

August 27, Sunday
Morning cold. Later
cloudy. Late afternoon
clear & quiet, but
cool.

Spent the forenoon
in arranging materials.
Took dinner with the
Campfire girls.
Returned to my work,
and at 4 P.M. I
talked to the Campfire
girls

What do you see first - you need
Cumberland Gap story.
Picking wild flowers.
Returned to my work.
Misses Maidens Hastings
left by auto.

Spent evening in
arranging materials, etc.

August 28, Monday
Took row boats down canal
to Emerson Bay.
Towed & got vial A - across
Miller's Bay.
Vial B - Upper end of Canal, soon
past turn.
Vial C - About $\frac{1}{2}$ way down
Vial D - From open water near lower
end of loop in canal.
Vial E - Open brackish water in
canal below loop.
Vials (2) F - In swamp off canal
below loop.
Vial G - Outlet of canal into
swamps at lower end, &
part of swamp near
Vial H - Towing from Cove to
Elm Creek - surface
Bottle I - Surface towing near
shore - Elm Creek
Bottle J - Surface towing near
shore - Elm Creek
Vial K - Scraps from granite
boulders - Elm Creek

Vial L. Towed near shore
Blu Creek to Wah's cottage,
surface.

Vial M. Towed, surface,
to our dock.

Returned to care for
materials.

Wm. French got some
seed flowers at Blu Creek,

The day turned out
very windy and it was
fortunate that we did
not try to dredge. We
rowed to the Crescent by
canal & returned around
Gull Point. Pretty rough!

Found a weird in absence
(Acros, in) Gloriosa &
(another layer) in seeds of
Iris versicolor. Gave them
to Macbranum.

Aug. 29, Tues.

The day opened quiet & cool.
Later a breeze came up
and blew (not strong)
all day.

Spent forenoon in passing
plants & managing materials.
Took the Des Moines, with
French & Whittle, to Arnold's
dock & walked down track
to Wilford. Collected
ants on my big Carex,
Culanthus gracilis canadensis, &
fungi on *Linum viscaria*,
Leptodeira septentrionalis, etc.
Peltanthus macrocephalus
is in full bloom.

Also from *Brevardia annulata*
in prairie (rather flat) along
R.R. south of Arnold's Park
walked to Wilford, then to
Ovalton, D.C. & home.

Collected on little prairie W. of
Green Bluff

Aug. 30. Lived
Started at 9 am. for
the Little Sioux.
French wanted to leave at
7 but boat did not come in,
we (Whittle & I) walked
along prairie just E. of
Crescent dome.
Gathered seeds, etc.
York River. -
No. 15 Looking E., toward
Crescent dome foreground
ent prairie back prairie
with looking to form
main prairie across
ent prairie.
just opp. stack is a
dry cattle hole.
Photo 9. - Pasture with
only tall sage needed left
break
Photo 10. House, very away the
in NW. in July all
ac. 34

- Photo 29 - same as 1 from in
 ne. cor. S.E. Bl. 4 sec. 33.
 Photo 30 - same as 10
 Photo 7 - looking N. of W. across
 little stream, diagonally across
 line 1/2 mi. south of sec. line
 of sec. 34
 Photo 5 - looking N.W. from corner
 of sec. 34
 Photo 31 - looking S.E.
 " 32 - looking
 from line 1/2 mi. on
 N. side of 33, at
 Photo 25 - S. from middle of
 valley from same point
 Photo 26 - looking S.E. from
 near E. 1/4 of 2 sec. line -
 Photo 5 - same.
 " 6 - looking S.E. from same point
 " 37 - same as (6)
 " 4 - Beach, Herford,
 " 1 - Colby Bl. from near bridge
 (spotted)
 " 11 - almost same as (1)

Hillside bog at base

Eupatorium purpureum
" *perfoliatum*
Globularia alypum
Lathyrus discolor
Heuchera grossularia
Sisyrinchium campestre
mvs blue *Bizania squatica*.
Gilia tricolor
Solidago canadensis
Dipsacus laciniatus
Cirsium rivulare
Solidago canadensis
Polygonum aviculare
Rubus hispida
Hedysarum occidentale
Aster umbellatus
sharp grass
Thlaspi arvense
Margaria longifolia
Rumex (like crispa)

Carex
Impatiens triflorae
Gilia -
yellow *Minuartia*
Pelargonium australe
Verbenas bicolor
Agrostis capillaris
Rt Wd grass
yellow *Leavenworthia*

Photo - Hillside bog, Loring St.

Photo 1 - same place
but lower down
July 20

Photo 2 - same place
and a S. side timber
H. slope grasses

Photo 3 - July 28 E. gentle
slope from Rd near
Cement bridge

Photo 4 - July 30 same

Photo 5 - July 30

Photo 6 - Loring St. from
same point
Walker home

Aug. 31, 1916 - Fri

Took photos around Lab.
In afternoon rowed
Whittle to Arnold's
Park & I then rowed
to Lower Fox Lake &
collected many Acrida
diaphanae, - nearly all
on very bare & stony
& patches of asphalt,
& also about 300
Anelias trivittata,
nearly all farther up
on patches & stony
& coarse plants.
Returned (towed by
Des Moines from Chetco)
& arranged & packed
materially was
up all night, & barely
finished packing.

Sept 1st
Drove away at 8⁰²
A.M., & young Livingston
got us to Montgomery
in time for train
(due 8⁵² came 9¹²)

Shipped stuff &
Miss Cawelti, Melona
& I took train.

Hot & crowded.
Arr. home at 8²⁰
P.M., safe.

Oct. 13 - Friday 1916

Left Iowa City at 8³⁰ am
for Davenport (fare \$1.08)

Then, at 10⁵⁰ got train for
Waukesha (fare 51¢)

Young & Bost had gone
ahead.

0

~~Rancho Madera - road
from town~~

Pung Dale (Rev?) via
wide road, in some
30 m. down,
crossing

7. Chrysanthemum leucanthemoides, No. 1

Dale 2, W. side of road
About 100' above stream
about 14 in.

Dash 3 on 9: ~~Indigo~~
will ~~be~~ ~~the~~ ~~name~~ of
bird, now ~~the~~ ~~name~~ of

The last section
is like Bandage fitting
over bone

Oak 4 is of the first
blackwater type.

Oak 5 - Oakland
Sat. Nov 4 1961

Dale 6 is on E. side from
at culminating to fossiliferous
beds, - at west.

in der Vorsitz-

—

Plant 3 - late (1)

4-1247 21-
W. S. H. 1900

Photo 25. The same subject as above.

— — — — —

A detailed pencil sketch of a small insect, possibly a fly or a wasp, shown from a side-on perspective. The insect has two large, transparent wings with visible veins, a compact body, and six legs. It appears to be resting on a thin, vertical stem or branch.

A small, dark, irregular object, possibly a piece of debris or a small insect, located near the top center of the page.

♂ ♂ 800 - 1000
Baby 57
♀ 1000-1200

This image shows a very faint, horizontal photograph of a white surface. There are four circular marks, possibly from a stamp or punch, arranged horizontally. The first circle on the left contains the word "Stock". The second circle in the center contains the word "Pawley". The third circle on the right contains the word "Wickie". The fourth circle on the far right contains the letters "G" and "P".

100

Old dunes, W. J. Dugger

- ✓ Euphorbia corollata
- ✓ Heuchera sanguinea
- ✓ Panicum scabriusculum
- ✓ " virginicum
- Leopoldia capitata
- ✓ Andropogon scoparius
- ✓ " furcatus
- ✓ Solidago nemoralis
- ✓ Ambrosia piloselloides
- Lepturus americanus
- ✓ Aster multiflorus exigua
- Phragmites communis
- ✓ Carex picta var. spectabilis
- Cyperus carolinianus
- ✓ Cyperus esculentus
- ✓ Rosa glauca
- Oenanthe biennis
- ✓ Thlaspi赴atoroides & corylifolia
- Xanthium communis?
- ✓ Poa compressa
- Croton capitatus
- Caesalpinia echinocarpa
- Bromus rhombifolius

- ✓ Eriogonum canadense
- ✓ Mecynocarpus vitiellina
- ✓ Grindelia polystachya
- ✓ Liatris ligulistylis
- ✓ Sisyrinchium campestre
- ✓ Achillea millefolium
- ✓ Medicago hispida
- ✓ Artemesia vulgaris
- Polygonum perfoliatum
- Chrysanthemum leptocephalum
- Plantago rugosa
- Juniperus osteosperma
- Dipsosaurus dorsalis
- Lathyrus palustris
- Calochortus luteus
- Gymnocalycium
- Staphys agricola
- Thlaspi grosseserratum
- Achillea millefolium
- Polygonum perfoliatum
- Mastixia ludoviciana
- Liatris pyrocephala
- Bidens triplinervia angustifolia

- ✓ *Solidago pinnata*
- ✓ *Solidago grammicifolia*
- ✓ *Ceanothus americanus*
- ✓ *Boraginaceae* native
- ✓ *Melilotus canadensis*
- ✓ *Polygonum perfoliatum*
- ✓ *Saxifrage - hyperborea*
- ✓ *Asteraceae* unknown
- ✓ *Apocynum cannabinum*
- ✓ *Cypripedium Schwenckii*
- ✓ *Osmunda cinnamomea*
- ✓ *Maianthemum canadense*
- ✓ *Veronica Americana*

56 - 4.

Photo 26 - July 26
Rhine River at 100
feet above sea level
in back.
Many species

47 33

(off Intermountain)
Stewart along Muddy Bay

May 5, 1917

Bright, but cool, after
week of heat, sun, rain.
along sandy, dry soil -

lime soil -

" sand (few)

lime soil

Hilly

and all forms)

Observed

<i>Acacia</i>	<i>Fragaria virginiana</i>
<i>Acacia</i> - <i>Acacia</i> - <i>Acacia</i>	<i>Amaranthus palmeri</i>
<i>Acacia</i> - <i>Acacia</i>	<i>Rumex</i> , <i>facial</i>
<i>Acacia</i> - <i>Acacia</i>	<i>Amaranthus palmeri</i>
<i>Acacia</i>	<i>Rubus</i> ^{rapetra} <i>leptostachys</i>
<i>Acacia</i>	<i>Glycyrrhiza</i>
<i>Acacia</i>	<i>Thlaspi</i>
<i>Acacia</i>	<i>Polygonum</i>
<i>Acacia</i>	<i>Polygonum</i> - on black salt sticks
<i>Acacia</i>	<i>Prunus</i> - wild cherry
<i>Acacia</i>	<i>Antennaria</i> - pink
<i>Acacia</i>	<i>Antennaria</i> - Big Oak

Vernation

straight

Common Dog Iris Catkin
Mullein Phlox divaricata
Monarda Hedysaria pulp. & Salix humilis
Saxifrage Arenaria latifolia

Serped

May apple (convolute
ovalis) & *Cardiophorus* Trinita

Convolvulate

Red Clover (oblets)

Ornithogalum - in flm.

Plantago major crab.

Rosa gallica

Strawberry (convolvulus hirsutus)

Salvia

Linaria sericea

Thlaspi rotundifolium

Thlaspi rotundifolium

Plicate

Potentilla canadensis

Raspberry (canadensis & vitis)

Currant (pl) Boxberry - involucellate

Doe Elder Golden currant

Burdock (pl) golden currant

Self-heal - *Leibergia* (monstera)

Cirsium - *Crataegus* magellanica

Prunus occidentalis

Ribes glandulosum

Huckenia

Hayel

Circinate
Cycloptilum praevidens
Spiraea filix-femina

Convolute

Rumex -

Aster dumosus
Bryonia gradiifera

Involute *Viburnum dentatum*

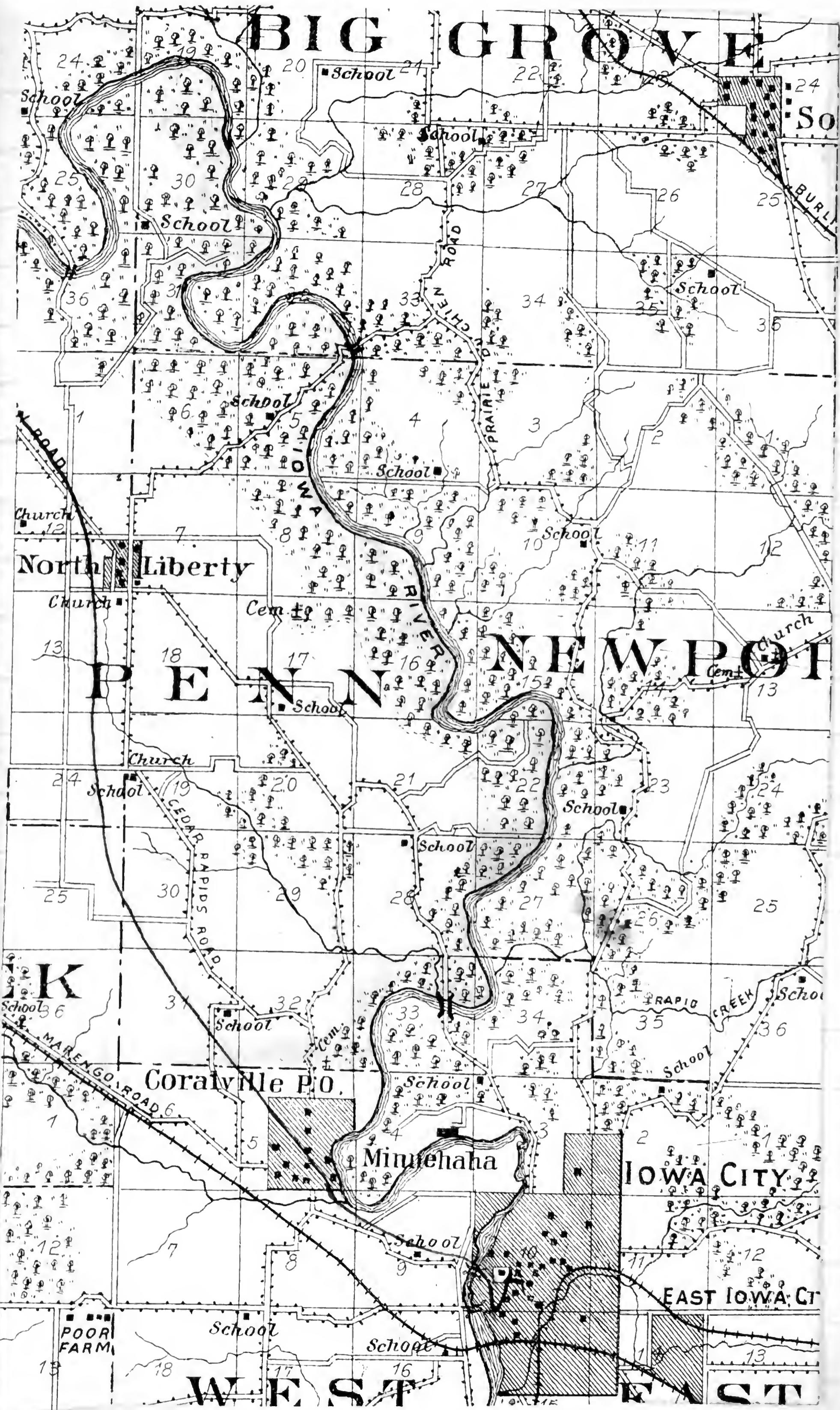
Saxifrage - *Antennaria marginata*
The plant
Lactuca?

Saxifrage -
Yoda involuta
Ludwigia sp.
Drosera sp.

Revolute.

Imbriata

Valvata



circinate

Valvata

A sandy ridge
Helleborus foetidissimus
Potentilla canadensis
Mullein
Anemone nemorosa
Dryopteris virginiana
Achillea
Antennaria peduncularis (?)
Carex pensylvanica

June 1, 1917

went out to Prairie along
R.R. E of Dows City.

Dows in flower:

Polygonum avicinatum
Lithospermum canescens
Comandra umbellata
Sisyrinchium campestre
Hypoxis hirsuta.

Oreasteria
Viola pedatifida, mostly pink.
Ranunculus Macrorhizus - wet.
Senecio glattensis
Argemone leporina
Kerria japonica
Oxalis violacea
Aconitum canescens
Alliaria myrtillae
Pedicularis canadensis.
Potentilla canadensis.
Anemone cylindrica - just sprouting

RETURN AFTER FIVE DAYS TO

Mrs. Bertha Hellecker
Instructor District No. 15
Wellman, Iowa

p.p.i.

Trip to Crete, Ne. 1918

Taxi, down City	6.25
R.R. to Omaha	6.50
Pullman	1.50
Breakfast, Diner	1.10
R.R. to Crete	1.50
R.R. from Omaha to Lincoln	1.10
<u>Aug. 27</u> R.R. to Plain	
Brahburt - plain	50
Lunch	30
Maple Man (fish)	50
R.R. to Omaha	50
R.R. to Hamburg	1.00
Cash fare - G. & H. & H.	10

Aug. 26, 1917 - Sunday
Left Down City at 12⁰⁵ am
for Omaha & Crete.

At Omaha changed to
B & M. Found Kutzak & Mik
going, & at Lincoln
Brooks was on train.
Reached Crete at
12³⁰. Met Gen. Hastings
(the Dean's brother), Mayor
John Kelly & later,
Howell & Avery.

The crowd was very large
and very good-natured and
well behaved. Several
remarked on the improvement
since liquor has been
prohibited.

The program was
dry and tedious, and
I got through about
1:30. The crowd

diminished very much
and to Lincoln with Chancery every, Bush
Kutzak mostly.

I spent the night
at Burnside.
I got up at 5:30^{am} & left
quietly.

Aug. 27. Monday ¹⁹¹⁷

Went to Blair from
Water St., station
At m. N. of Florence
we passed the Wethersby
farm where Mrs. Nathan
was murdered by a negro.
Reached Blair at about
7 P.M. took breakfast
at the Clifton Hotel.

Walked to Blair bridge.
The warden wanted to know
all about me. He said that
at night a deadly slay
& two guards watch
the bridge.—
I walked across.

Land along road on flat
bordered by stone
Panicum magnum
calcareous
Kalanchoe
in brown soil under

Bunches among cottons (small,
4-6 in in diam.).
Sorghum bicolor - domed
Ipomoea batatas Verbena stricta
Sugarcane one in. Trifoliate leafed
Grindelia spm. " " same from
Cenchrus " " Cratalium -
Portulaca oleracea Euphorbia par.
Molinia caerulea " " (4 in)
Arenaria pumilio Rhin. glabra
Onobrychis Persicaria sedoides

<i>Polygonis prunum</i>	common particularly
<i>Setaria viridis</i>	Saccharum ludovic (junc)
<i>Brasilioria marginata</i>	Acacia sp.
<i>Lepidium apetalum</i>	cyperus tenerulus
Xanthium	Albu toxicaria
<i>Hedione</i>	Elymus caninus
<i>Desmodium canadense</i>	Apocynum
<i>Panicum capillare</i>	Kuhnia cespitosa
<i>Natis graminea</i>	Polygonum perfoliatum
	Chenopodiaceae

Most of the dunes also
flatter than (except very low)
are even with Cassia
chamaccista - mostly in bloom,
some very old.

An occasional fresh dune
has Cassia chamaccista or
in some Thespesia diffusa
or in one *Croton* - but
first-leafed species

The dune with flying willow
now has more. It's more
or less open with Cassia
& grass (Gramineae).

My big smooth Kura is also
somewhat everywhere.

Very little low sand appears.
The big cottonwood in almost
never below than 2 ft in
some cases.

On flatter sand

Rosa -

Astelia variabilis

~~Chenopodium~~

grass -

Verandia tenuifolia

The other dunes in some
places are covered with
forms.

There is very little
wave, surfacing sand. The
most seasons since 1907
seem to have produced
a marked effect, and
vegetation has developed.

The most striking feature
of the vegetation is the
great predominance of
Cassia chamaccista. Two
crops seem to be in evidence,
one brown and dead (mostly
on the larger dunes) and

another fresh & flowing.
On only a few dunes
in the sandbar common
I found a "real willow"
out on flat.

The flat between the
dunes and river is quite
wide (must be nearly a mile)
and is not very sandy, but
more like the Mandan River
sand (somewhat rocky) of
the Niobrara.

This flat probably furnishes
the sand for the dunes.
Dense growths of recent
new dunes from growing
Cottonwoods have also
been planted, - clumps in
rows parallel to river,
and this has had its
effect in checked new
dunes. Altogether the
transformation is very
striking.

Walked back to Blair,
noting incidentally the
low, broad (about dome like)
bank of sand which
irregularly extends to
Blair. Several cuts
in RR. show laminations
some nodules & a few
fragments of shells. (Did
not examine closely this
time).

Went to the Clifton Hotel,
had supper & left for
Omaha at 6¹⁵ (early)

On reaching Omaha
took car for Cervel
Bluffs.

Promised plants at
CB & Q. depot, so left
at 11³⁰ for Hamby.
Reached Hamby at
1³⁰ after part up at the
Julian Hotel.

Aug. 28 / 97 Tues.
a.m. at 8 am.

Went up on ridge at Hamburg
the top is too well
occupied by *Salsola* &
Melilotus alba & *Setaria*
viridis.

On slope going up I found
Erophila heterophylla (in low
bryophyllum (rare) &
near top of ridge, between
water meadow & forest the
following were noted:

Agrusa - abn.
Melilotus alba - abn - comm
Heleoanthus canescens fl. abn
Stellaria media fr. comm
Galium aparine fl. fr. comm
Liatris punctata - some - low
Bouteloua - acuminata - very comm
Glynn virginianum - some, fl.
Vernonia novae-angliae - fl.
- paniculata fl.
D. *Solidago speciosa* var. *yellowbeard* fl.

Erophila marginalis - several fl.
Astragalus gracilis fl. not many
Hypolepis marginata common fl.
Solidago - narrow leaved & broad
Chrysopodium - some low
Aster multiflorus - some
Solidago canadensis both with long
towards edge of shrubets

Prunella vulgaris fl. low & top
Ranunculus acemoloides fl. not rare
2: This side same as above
Oenothera cespitosa fl. low
Heleoanthus canescens fl. few
Cirsium heterophyllum fl. few
Verbena stricta fl. few
Crataegus oxyacantha fl. many
Bromus tenuis fl. few
Polygonia cuspis fl. few
Staphanus rigens fl. well up the
Hawthorn - few fl.
30 *Bouteloua gracilis* few fl.
large grass - top fl. 3 clumps
Hedonia hispida fl. few
Petalostemum purpureum fl. few

34. *Euphorbia* small-bl. 1
 35. *Euphorbia* - msp. bl. 1
 36. *Amaranthus palmeri* fl. - com.
 he says it. - still high, but
 just now flowering added.

Another new sp.
Dipsacus sativus.
Ajuga common
 Brown molls. for
 Blue Graham sp.
 grass - 1

Red flowers red & yellow
 blue & white
 flowers - 1

On roadside bl. added
Ipomoea sp. few 1
 Indigofera sp. few 1
 Other leaves - but - com.
 Ceanothus hyacinth - several
Otidogalathys - fr. one 1
 Monilon hirsute fl. w 1
 Solidago woodii 1
 Dahlia " 1
 Oxytropis 1f 1w

Lactuca scariola 1f 1w
 Ruellia ciliata 1f 1w
 Eriogonum canescens 1w 1f few
 Orosmunda cicutaria few 1f
 Solidago rigida 1f 1w
 Petalostem cicutaria fr. 1
 (60) *Castilleja* sulphurea 1f 1w
 a little dry less bristle
 just before starting light hills
 N. (n. of pearl valley), by
 "D means the highest point
 here, has the following
 very variolous flora:

Solidago nemoralis 1
 Verbena stricta
 Dalea 1
 Euphorbia macrorhiza
 Bartsia cordifolia
 " 1
 Solidago nemoralis
 Tetradymia paniculata
 Oxytropis calycaris
 Achyranthes -
 Gerardia aspera
 Aristida lanuginosa (?)
 Melilotus alba (fr)
 Castilleja sulphurea
 Sphaeralcea obtusiloba

15
1N*Vernonia secundina* fls.

Adds on high ridge north
of Carrie Branch & starts fl.
(cont.)

*Verbesina caroliniana**Taraxacum* —*Solanum rostratum**Eryngium ciliolatum**Dipsosaria japhaea**Verbascum**Scrophularia**Lindleya ciliolata**Gammelia*
*Campylo-**Ixalis obliqua**Tetradymia canescens**Linum sulcatum**Cassida strobilosa**Redbeckia hirta**Plantago aristata*

a b
Hololeia integrifolia
Desmodium brachyloba



a = sharp, narrow ridge at end
 b = lower flat part (mostly excavated), which has reservoir
 c, d & e are part of a lower ridge running down from c
 to d. c is a shade lower than b.

e is ridge running down
 toward S-E

q. is a high tree level
of bluff running far
N & a little west.

Tulipa agenensis was
very common in flower
on this

Dwarfed very in high lots &
found following.

Tulipa agenensis. fl. very com.
Verbena lutea fl. fr. white
Antennaria sempervirens
very abundant (mostly thin.)
Bouteloua aristata - fl. green
Liatris punctata - lwd - "

Rubus ciliatus lwd - not a
Heliotropium salicinum - lwd - common
Astragalus - low fl. rather com.
Tulipa membranacea - fl. white -
Krascheninnikovia argentea fl. (few fl.) com.
Castilleja pallida - fl. occasional
Euphorbia - small smooth - fl. few
Molinia alba - fl. not rare (very abundant)
Andropogon scoparius - lwd - common
Panicum capillare - fl. few
Bouteloua curvata fl. frequent

Hypolepis juncoides fl. frequent
Euphorbia marginata fl. - scattered
Salvia - fl. scattered
Heuchera hispida (dry) few.
Yucca glauca agrestis fr. scatter
Rhus glabra. fl. mostly lower (fr)
Zizaniopsis
Banksia - fl. scattered
Solanum nigrum - fl. scattered
Erica arborea - fl. scattered
Delosperma virens fl. scattered
Antennaria pedicularis fl. common
(wits) - fr. few
Verbena bracteata fl. few
Phytolacca
Prunus - lf. mostly few
Dysoxylum pectinatum - lwd - some
Thlaspi arvense fl. scattered
Rumex crispus fl. l-shrub
Paranotis fl. few
com. on N. slope
Acrostichum aureum - fr. few top
Andropogon furcatus - on a slope
Salvia leucophylla - scattered
Oralis stricta fr. scattered
Ceanothus ovalifolius com. N. slope
Euphorbia pulcherrima - fl. scattered
" - fl. com. small

~~Asteridae~~ Canna (?) fl. yellow
Grewia canescens fl. few rose pink
Cenchrus - fr.
Ormosia revoluta fl. sublum.
Linum sulcatum fl. few
Coccolia folium - fl. small
Rubiaceae (?) fl. small several
Bloutya white fr. low

This upper part is much
pasture, & rarely weed like
Astelia arborescens, A. pittoresca,
Euphorbia rugosa, *Dysoxylum*
(support burns trees) take
form.

Melastom ssp. & *Amomum*
arborescens (A. pectoralis less
so) are badly scattered in
open in little valleys
they are scattered.

Native plants are fresh
Euphorbia - & *Grewia*
canescens are also scattered
in the open.

Corn runs up from No. 9
is stunted at edge at top,
near few stunted cabbages
in pasture - at top)

On the very point of (?) Verben
struma is wet (leaves drain
up to stem)

Grows down along (?)
edge:

Hibiscus ellipticus - fl
Oscularia reticulata - fl. common
Desmodium brachycalyx br. few

The day was dry & windy,
though the wind was cold.

I returned to the hotel
& waited for my train,

3:30 P.M.

The bluff blow off finely.
The timber is in valleys
& gullies except where
orchards are planted.
Tree around the first big
bed in bluff is a crest
with slopes tree covered
most of the way. Beyond the

The front is again treed.
Parts of the cliff between
Pacific & the station
small and lower, less
steep & not broken on
the face.

Above Pacific & the
bluffs are quite woody
for a distance. Then a
knobla, - a valley, - &
more woods.

Then the RR. comes close
to bluffs which are steep,
mostly bare on face, with
wooded valleys. This is
just before 1st station N. of
Pacific St.

This little station looks
good, both wood & bar bluff

Muscatine, Nov. 16, 1917.

Left Iowa City at 2⁴⁴ pm,
+ reached Muscatine at 4³⁰
via Wilton. Put up at
the Hotel Muscatine.

In the evening I spoke
to a good audience at
the Public Library, Miss
Chaffee presented me
for the Elks Club
Talks 1 $\frac{1}{2}$ hours.

R.R. .84 ds

Suburb .75 2 Wayfield .16

Hotel 2.00 2 Iowa City

Breakfast .60

Porter .16

.84

5.18

1.00 new coin

6.18.

1917.

Outline of my talk:

Changes in 3 yrs. - apologies

3 yrs ago, none now.

Snow that ^{with Otto Kahn} German
situation in Europe.

German duplicity - & disregard
of rights

Austria -

Why we are at war.

Sinking of French, loss of
over 200 lives

Bombs

Intrigue - Mexico, etc.

Drama

Fight for Democracy.

Applause continued long, - and as
Mr. Tamm Hudson; Senator &
Miss Lillian (McKittell) were
present.

Nov. 17 - Bayfield.

1919

Trip to Oskobzi - May 11-12-

Left at 9:55 AM for Cedar Pass
with Mr. Fish. Left on
Rock Island at 11⁰⁵ AM
for Montgomery.

May 12. - Left Burlington
met us at Montgomery &
drove to Lab.

Bush oaks show small leaves
& very young catkins.

Flowers everywhere very
Amelanchier in fine flower on
bank. Few *Uvula* (haws)
in flower near main road.

Aquilegia seen in bush on
banks.

The ~~forest~~ (I should say wood)
many *Antennaria* ^{neglecta} in
fine flower, a very few
Anemone flowers & *Astragalus*
caryocarifolus, & quite a lot
of *Carex* (is it *pekingensis* or
tetanis & *muskei*?)

Oskobzi May 12, 1919

Tools in bag on
windshield
Square
2 saws -
Chisel -
Wrench -
Shears -
Draw knife
Stone for scythe
Sickle
Plane -
Pine bar

In Burlington again I found
a few small lance stachys
in flower.

On the drive to Elkhorn
& Milford saw very few
flowers. There was a few for
the *Anemone* flowers & *Astragalus*

caryocarum.
Left Milford at about
3:30 P.M. for Spirit Lake.
At Arnold's Park found
Marlows grandiflorum just
in good flower, with
leaves small.

Left Spirit Lake at
4:23 P.M.

Along R.R. in flat
Wisconsin plain are rather
few flowers. Some good
patches of *Pediomelum esculentum*,
a very few *Lithospermum*
caeruleum, a few *Hottonia*
pedunculata, some *Antennaria*
on the whole very scant.

Trip to Des Moines & Boone
May 15, 1919 Left at
4:35 am.

About 5 min. ride W.
of Grinnell, on N side;
As a plateau of prairie
with *Vitis riparia* and
Pedicularis canadensis.

Just as we were coming
to Des Moines, off the
state fair grounds we
saw many *Lithospermum*
angustifolium in flower
along road.

7 or 8 species along
line so far

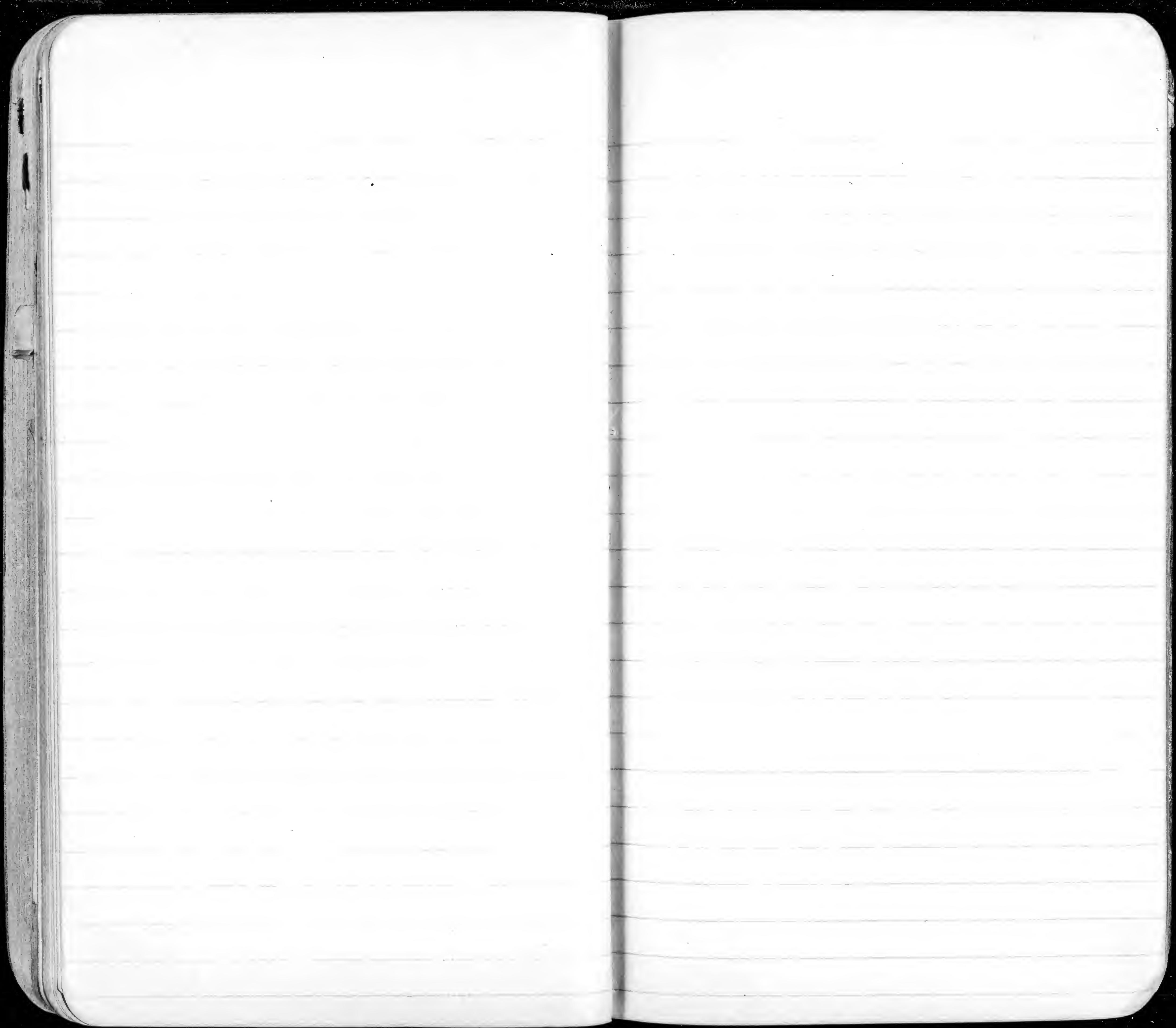
Pedicularis canadensis
Sisymbrium canescens
Fragaria virginiana
Lithospermum canescens

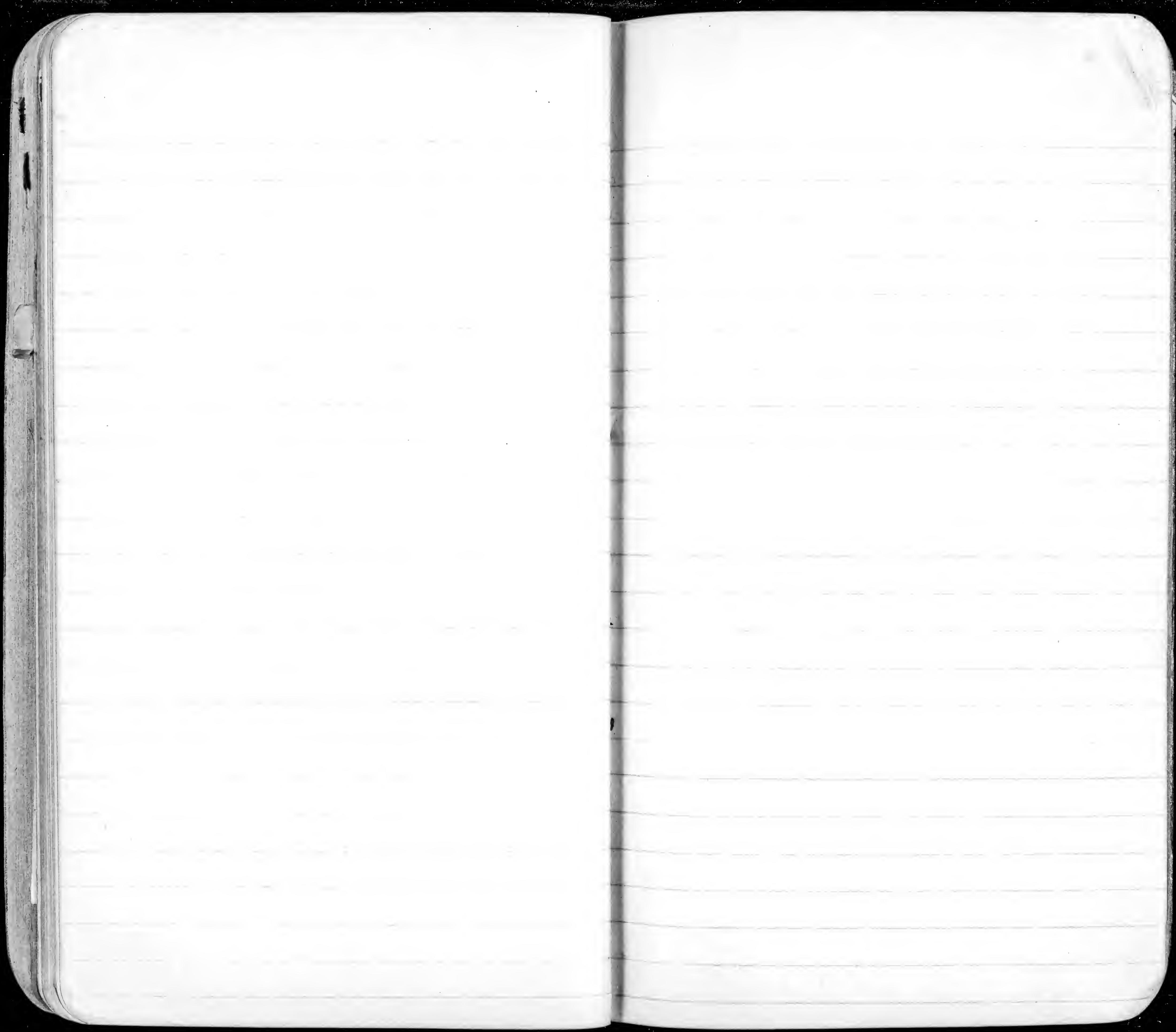
Story Co.
At Kelley saw in fl -
Oxalis *purple*
Lithospermum canescens
Viola pedatifida
Fragaria virginiana
Lithospermum angustifolium
Dandelion many

Just outside of Boone
a pond had a good many
Ranunculus aquatilis -
with flowers standing 2 or
3 in. above water.

Greene Co
At Hope took
Sisymbrium
Lithospermum canescens
Fragaria virginiana
Oxalis *purple*

Also at Hope
Antennaria *reticulata*
Lithospermum angustifolium
Viola pedatifida
Silphium laciniatum (lf.)





William McGraw

RR to Cedar Grove	.86
RR to Waukesha	5.99
Publishers & Postage	1.87
Enclosed, undelivered	.65
RR to Sheldon	<u>1.95</u>
	11.32

4 11.32 owing
10.71 return
4 22.03 due 1.26
4 1.57
4 9.45
4 10.71

R.R. to Waterloo	6.94
Suburban dinner	.65
R.R. to Cedar Rapids	1.71
R.R. to Iowa City	.86
	<u>10.10</u>

1919

To Sheldon R. May 18-19

Left Iowa City at 4:45 & Cedar

Road at 11⁰⁵ - went to bed.

May 19,

near Eunice -

A few good patches
of very small *Pedicularis*
canadensis. A few
scattered patches of
very small *Fragaria*
virginiana, and one
at the lithoporous.
A few *Lysimachia*
(white).

Walked E. along C. M. & RR

Finds a few low *Tradescantia*
in bloom on RR gravelly bank

Saw a couple of patches of
Pedicularis, a number of
Lithophragma canescens, a few
L. angustifolium, scattered
Pole pedatifid. & *V. ciliolata*,
a few *Gilia* spp., a few
Scrophularia spp. in bud,

quite a lot of *Fragaria*
virginiana, a few *Hypoxis*
hispidula, *Vicia* spp. in bud,
Lithophragma spp. in bud.

Oxalis spp. quite common
Antennaria ^{neg.} *cordifolia* & the
old, *Senecio* spp., a
few, hardly open.

Along RR west I saw
Lithophragma common but
" " aquilegia more

Pedicularis common beds -

" *Asplenium* on knolls

" *Vicia pedatifida* scattered

" " *Agastache* "

Osmunda cinnamomea - bunches

" *Ranunculus septen.* flower green

Sisyrinchium - mostly white -

Taraxacum -

" *Primula* with four *Ranunculus* multiple

" *Agoseris* cuspidata? several

" *Antennaria* *responsa* - bunchy

✓ *Fragaria Virginiana*

~~Hippocratea~~ - ~~all~~ - ~~all~~

~~Ranunculus Eschscholtzii~~ ~~var~~

All in flower & clear of

Ruthven.

West of Ruthven -

Three species new to me

new to California

West of Ruthven ^{mostly flat} ~~(Ruthven)~~

Aquilegia ^{sparsely} ~~sparsely~~

Astragalus ^{com}

Dolichos

Taxodium

Hypoxis

Fragaria

Lithospermum ^{com}

" *angustifolium*

Pedicularis ^{com}

Ranunculus ^{var}

" *Septent.*

Argemone ^{com}

Vicia pedatifida ^{com}

" *ciliata*

Anemone ^{com}

Senecio

Oxalis violacea

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

Capsella glabra at
Mountains, ^{grows} mostly sandy soil.
Bromus setosus at Freshly
at Hartley the pastures & roads of
way are yellow with Dandelions.

Rough grass W. of Hartley -
Comandra along W. of "
Agoseris is on hills, with
Astragalus -

Anemone Peters common
between Hartley &
Shelday several sp.

Reached Shelday after 12
had dinner at Hotel
Krohe in afternoon on
Gardner's
Left on Mt. Catt. for Valdov
at 5 P.M.

	Sioux City	Waukon	Buena	Calamus	Lakeview	Cherokee
<i>Aquilegia</i>						
<i>Antennaria</i>	v	v	v	v	v	v
<i>Astragalus</i>	v	v	v	v	v	v
<i>Arenaria lateralis</i>	v	v	v	v	v	v
<i>Franseria</i>	v	v	v	v	v	v
<i>Bryopsis</i>	v	v	v	v	v	v
<i>Lithophragma</i>	v	v	v	v	v	v
" <i>angustifolia</i>	v	v	v	v	v	v
<i>Oxalis</i> rotundifolia	v	v	v	v	v	v
<i>Pedicularis</i>	v	v	v	v	v	v
<i>Ranunculus</i> formosa	v	v	v	v	v	v
" <i>repens</i>	v	v	v	v	v	v
<i>Saxifrage</i>	v	v	v	v	v	v
<i>Sisyrinchium</i>	v	v	v	v	v	v
<i>Vitis amurensis</i>	v	v	v	v	v	v
" <i>pedata</i>	v	v	v	v	v	v
<i>Taraxacum</i>	v	v	v	v	v	v
<i>Cordia</i> ^{folia} <i>rotunda</i>	v	v	v	v	v	v
<i>Diapheris canescens</i>	v	v	v	v	v	v
origin of Cherokee Co.						

Rev Geo F. Barstow
Whiting

Iowa
Waukon Calamus 2nd paper

Print of Banisteriads
folds.
Guide to Museum in
Biol. Museum

Mr. Barstow speaker of
and with drift at base
& loess above between
Sioux City and Waukon,
Iowa, on Gr. Northern

2190 394 6-63
113

To Brighton July 1, 1919

Taxi, Iowa City	\$1.35
R.R. to Grinnell	2.14
Hotel - private room	1.55
R.R. to Brighton	2.57
R.R. to Iowa City	2.14
Total	.35
	<hr/>
	9.12

Tues

Brighton, July 1, 1919

Left Iowa City at 11⁵⁰
Reunited in Grinnell

July 2 -

Left Grinnell at 9³⁰ AM
Arr. Brighton.

Kunkel
Thlaspi hisp fl very com.
Another species of
Thlaspi not seen, other
habitat will determine fl
Mystro - com fl
Hemidiodia longula fl
Asperula abducens fl
Aralia spinosa fl
Pastinaca sativa fl sp.
Thlaspi donysanum fl
Festuca - yellow (fragrant)
Polygonum glabrum fl

Veronica stricta fl
(seen where timber the
strip along R.R. is prairie
except where ditch)

Silene hirsutissima fl
Corynepetalum obt fl

Geckomia - fl. for H
Lithospermum - white bud
Zizyphus Malinae
Red clover fl.
Siberian bellflower fl.
Aegopodium podagraria fl.
Kohleria tuberosa fl.
Verbena stricta fl.
(all these a slightly broken
plant)
to Ollie - time on →
Local names in Woods are
Nation.)
Rubus hispida fl.
Corylus avellana fl.
Rhus glabra fl.
Castanea sativa fl.
(problem - golden) now
Liquorice fl. white bud
Asclepias syriaca fl.
Veronica longifolia fl.
Convolvulus sepium fl.
Lilium canadense fl. (lily)
Asclepias tuberosa fl.
Aquilegia canadensis

Veronica magellanica bud
Veronica hispida fl.
Camassia esculenta fl.
Elymus canadensis fl.
white multiflorum var. can.
Andropogon furcatus fl.
Lithospermum diffusum bud
Polygonum sativum fl. (?)
(possibly from water)
To Highland
Aquilegia canadensis fl.
Eryngium planum fl.
Rubus hispida fl.
Convolvulus sepium fl.
Populus tremula fl.
Cot. composita fl.
Andropogon furcatus
Sophora secundata fl.
Salix brachycarpa fl.
Lathyrus palustris bud
Piper aethiopicum fl.
Lychnis viscaria fl.
Piper aethiopicum fl.
+ *Castilleja pallida* fl.
+ *Asclepias speciosa*

+ *Hedysarum occidentale* L.
+ *Veronica spicata* L.
+ *Aster multiflorus* L.
+ *Mitchella repens* Willd. fl.
+ *Phlox diffusa* L.
~~griffithianum~~ Greene
+ *Polygonum avicinatum* L.
+ *Anemone virginiana* L.
+ *Vaccinium corymbosum* L.
+ *Asclepias syriaca* L.
Washington Co.

Hordeum jubatum L.
Helianthus grosseserratus L.
Lepidium apetalum L.
Rosa pratincola L.
Asclepias tuberosa L.
Eryngium canescens L.
Tradescantia virginiana L.
Ceanothus americanus L.
Lythrum salicaria L.

saw the following in
order of numbers.

- July 3 - 1919 Between Dorset
and Dorsetville N.Y. side R.R.
7 *Rudbeckia hirta* L. fl.
16 *Eryngium ramosissimum* L. fl.
25 *Euphorbia corollata* L. fl.
10 *Desmodium illinoense* L. fl. and
28 *Liatris pinnata* L. and
18 *Hedysarum occidentale* L. fl.
31 *Achillea millefolium* L. fl.
1 *Hordeum jubatum* L. fl. + fr.
20 *Asclepias syriaca* L. fl.
34 *Elymus canadensis* L. fl.
12 *Aster multiflorus* L.
11 *Helianthus grosseserratus* L.
Rosa pratincola
23 *Asclepias tuberosa* L. fl.
30 *Convolvulus sepium* L. fl.
Khus glaber L.f.
3 *Zizyphus rugosa* L. fl.
Red Clover fl.
Witch-hazel alba L. fl.
32 *Castilleja pallida* L. fl. + fr.
Lepidium apetalum L.
Andropogon furcatus L. fl.
2 *Phlox pilosa* W.

- 4 *Poa pratensis* fr.
Ceanothus americanus fl
Veronica agrestis fl
Dicentra canadensis
Hedysarum occidentale fr.
 26 *Erythronium americanum* fl
 Agapanthus fr.
 31 *Agropyrum brachystachys* fl
 Bromus arvensis fl
 33 *Talis humilis* fl
 9 *Gilia speciosa* fl.
 Diogmites albus fl
 Brahmsia laevigata fl.
 Lilium canadense fl.
 27 *Artemisia ludoviciana* fl.
 Urtica villosa fl.
 5 *Ambrosia trifida* fl.
 " *artemisiifolia* fl.
 6 *Catalpa bignonioides* fl.
 * *Corylus americana* fl.
 132 *Macrorhynchus dentatus* fl.
 27 *Silphium laciniatum* fl.
 19 " *integerrimum* fl.
 29 *Bromus tectorum* fl.
 " *Bromus tectorum* grass fl.

- 14 *Bromus pallidus* fl.
 Festuca integrifolia fl.
 8 *Sisyrinchium campestre* fl.
 18 *Habenaria leucostoma* fl.
 24 *Anemone canadensis* fl.
 25 *Viola canina* fl.
 32 *Heuchera sanguinea* fl.
 35 *Eryngium yuccifolium* fl.

Prairie

E. Iowa City - R.R. July 6, 1919

Polygonum perfoliatum fl.

Achillea millefolium fl.

Carex blanda fl.

Elymus sibiricus fl.

Lepidium apetalum fl.

Bromus fl.

Lepidium apetalum fl.

Dennstaedtia illoensis fl.

Peltotrichum canescens fl.

perfume fl.

Cypripedium candidum fl.

Cirsium Hillii fr.

Bontetonia corymbosa fr.

Solidago nemoralis Lich.

Eryngium yuccifolium fl.

Elymus canadensis fl.

Convolvulus sepium fl.

Helenium autumnale fl.

Zizaniopsis miliacea fl. (low)

Cicuta maculata fl. (very low)

Aponogeton concolor fl.

Vaccinium myrtillus fl.

Silphium integrifolium fl.

Oxalis filiformis fl.

Hypoxis intermedia fl.

Polygonatum multiflorum fl.

Polygonum pubescens fl.

Polygonum convolvulus fl. (1)

Oenothera lamarckiana fl.

Anemone virginiana var. laevigata

Caecilia tiburon fl. & fr.

Tulipa humilis fl.

Lysimachia nemorum fl.

Baptisia leucophylla fl.

Asclepias sullivantii (de) north

Augustavia canadensis fr.

Veronica missurica fl.

Siphocodon latifolius fl. (rare)

Dennstaedtia canescens fl. (rare)

Engelmannia pinnatifida fl.

Potentilla norvegica fl.

Asclepias tuberosa - fr.

Carex festucacea fr.

Thlaspi arvense fl.

Gentianopsis integrifolia

Potentilla argentea fl.

Kuhnia cristata fr.

- Asterolasia syriaca* fl
Heuchera hispida fl
Linnæa nemoralis fl.
Asterolasia viduella fl
Seraphium leporinum fr.
Nemoria milleflora fl
Vitis cordata fl
Eryngium planum fl
Phragmites communis fl
Tilia americana fr.
- 58 *Anemone cylindrica* fr & fl.
Polygonatum multiflorum fl
- 60 *Geum canadense* fl.
Polygonum perfoliatum fl
~~Trifolium~~ clover fl
Mitchella alba fl

Carex festucacea was scattered
here & there.

The purple Petalostemum &
Lysimachia were in patches;
also *Salpinea laevigata*
& *Grysiphila*, latter very
abundant.

To Dune Park - Sep. 23, 1916

A = sand, B = usually sandy, C = waste places.
D = weed.

- list of my dune plants:
- Aster ptarmicoides 8/30 1909.
Aster dumosus
" *sericeus*
" *sagittifolius*
" *lithariifolius*
Acerates floridana
Asclepias syriaca
Ammophila arenaria
B. Artemisia caudata
~~Artemisia arctica~~
Anemone cylindrica
Andropogon furcatus
" *scoparius*
Antennaria plantaginifolia
C. Ambrosia artemisiifolia
Asclepias tuberosa
D. Aspidium thelypteris
Bromus purgans
A. Cyperus Schueinhardtii
" *filiculentus*
Coreopsis tripteris
B. Commelina virginica
Chenopodium leptophyllum
? *Campanula rotundifolia*
Ceanothus ovatus
Coreopsis palmata
A. *Cycloloma atriplicifolii*
B. *Cenchrus carolinianus*
A. *Calile maritima*

- Desmodium canadense*
" *sessilifolium*
Elymus canadensis
Euphorbia polygonifolia
C. *Echinochloa corollata*
Equisetum hyemale
Erigeron ramosus
C. " *canadense*
D. *Eupatorium*
Fragaria virginiana
? *Galium pilosum*
Gerardia asura
Gnaphalium polycalyx
D. *Gerardia tenuifolia*
Hieracium umbellatum
" *longipilum*
Helianthemum canum
Helianthus hispida
" *occidentalis*
Henckelia hispida
D. *Iris variegata*
D. *Juncus Torreyi*
Kuhnia eupatorioides var.
Koeleria

Lobelia Nuttallii
Lactuca canadensis
C " *scariola*
B. *Lithospermum Gmelini*
Liatris pycnostachya
" *scariosa*
" *cylindracea*
B. *Lepidium perenne*
Lepidium apetalum
L *Lespedeza capitata*
D *Lythrum alatum*
D *Lycopus sinuatus*
Monarda mollis
A *Mollugo verticillata*
C *Melilotus alba*
A *monarda punctata*
D *Nuphar advena*
B. *Oenothera rhombifolia*
" *biscutellifera*
B. *Opuntia Rafinesquei*
D *Osmunda regalis*
A *Polygonia trachysperma*
" *Polygala cruciata*
Pycnanthemum flexuum
Pedicularis canadensis
Phlox diffusa

Panicum scribnerianum
D *Polygonum temne*
D " *amplibium*
D *Prunella vulgaris*
Rudbeckia hirta
C *Rumex crispus*
Solidago nemoralis
" *graminifolia*
" *speciosa v. angustula*
" *" rasevora v. Gillman*
Sorghastrum nutans
Smilacina stellata
Salix humilis
D *Sieraria viridis*
Stipa sparta
Scrophularia lychnitis
I. *Strophostyles helvola*
C *Talictora hali var.*
D *Scirpus*
~~*Globatis angularis*~~
Spiranthes
D *Spiraea salicifolia*
D *Steironema quadrifolium*
D *Stachys*
D *Scirpus validus*

Anasafas

- Tradescantia reflexa*
A. *Zephronia virginica*
C *Trifolium pratense*
D *Dyphus latifolius*
2. *Dianthus communis*
Bizia aurea
Verbena hastata
" *angustifolia*
" *hastata*

$A = 5 \text{ and } -1$

B = Usually sand 6

C = waste places 8 +

$D = \max$. 19

- = Prairie 59

$$\frac{2}{x} = \frac{1}{2}$$

Classification

www.visitwales.com

Wings 3 1/8. Forewing 1 1/8.

1. A.
H. brunn.
L. 100.

2. B.
H. brunn.
L. 100.

water, vegetation & floodbeds in winter.

Disjunction
Dilene Ch.

Anthonomus posticalis *Riley* sp. n.

Asim'ev
A. V. -

Digitized by srujanika@gmail.com

Left on W. Central suburban
train for Dene Park.
(Fare, round trip, 1.72.)

May 18th 1900
At Robertson's
Haberdashery with
a box of new Mary K. Parker
to May. It is all
now much the same to ~~old~~

Buffington. Oxford & the
of Buffington on sand
gravel, some sand, the
white oaks? Used the
sooty jack, Acacia,
old Pine cut wood piles
of a flat increased by
windrows. Looks better
now though, not very
good looking.

found ~~the~~ the way to Gary.
Its a scowling Freshwater
just beyond Curtis. This is
the place to go for Oaks.

Beyond Gary granite
driveway, & with more or
less sand possible, - oak,

Pine, etc.

At Miller's - heavy
woods of live oaks,
quite dry, & dense
well covered!

At same place, probably a
yellow oak wood, but very

RR goes through

Gentian - slender leaves

Lotus - small

Asteris thalictroides "

Passion vine - many

various vines - either "

Poa (like canina) "

Scrophularia

Lapathum sativa "

Anthrax scutellariae "

Salsix longifolia

Aster (dinner?)

Lactuca

Leptospermum

Acacia (shrub)

Prunus

Ambrosia dumosa

Rosa

Crotonalysia

Pentstemon

Thlaspi

P

Plantago

Hedysarum

Agrostis capillaris

Scirpus

Acacia

Lathyrus palustris

Plantago

Agrostis capillaris

Scirpus

Acacia

Scirpus

Solidago in Gallin

Lactuca canescens

Populus

Populus tremuloides

on sand and mud flats

Gymnorhynchus

young fish - yellowish

gaster -

yellow

adult - white

My first station & Oregon

but the water is flat

shallow and sandy - the water turbid and brownish

about 1000' from shore

the water is flat

and sandy - some

lily pads

but no big marshes

and very few.

On the flat we see

water lilies and

long, narrow, & a few

lily pads, also a few

few vegetalins, some

mostly only 1 to 3 ft high -

at foot following plants

M. of R.R. - low dunes - flat

the water is brown

turbid - very brown and

yellowish - Patches of

yellowish - brownish - greyish

yellowish - brownish

Large
yellow
leaves
and
white
flame
colored
spikes
with
yellowish
center
and
yellow
petals
around
the
center
Peaches
pears
Apples
Cherries - Pyrus -
Lilac flowers
Yellow bellied Tit
Bunting
Cuckoo cards

all along the way
trees & lowest
fusilage
ballast sand.

After flat top
is lower over sand

Amorphophallus

big crop of grass

On the water

big crop of grass

Pedicularis
Salix

Common
willows common

other plants common

- ✓ 1. Blue Marigold widespread
X 2. Baudry's shrub
3. Rose mallow W.
4. Tree on lake shore
Lofty S. of E.
21. Long topped tall grass
amorphophallus 2 dinner.

(Skip | 3 pages)

Expenses -	Ohio	
Gas. tape	Aug. 26-	.05
2 poles - duckes	Aug. -	.30
Nails,		¹⁰

Food - 2 meals	
French - 8 meals.	\$1.50
Buchanan 5 "	+ 4
Whittle 11 "	2.00 1.85
P.S. 11 "	+ 4
	2.50
<u>37.</u>	
<u>8</u>	
<u>45</u>	

Lap. little

Living exp.	
Bread - Muffin	.30
Milk	.15
Oatmeal	.10
From Miss Grader	3.92
Arcadia Park -	
Bread	.20
Cisco.	.32
Butter	.60
Milk - 14 quarts	1.00
G. D. flour -	.35
	<u>6.88</u>

(Con from Bazar book)

List of plants in Formalin Alcohol

- I - Scrub forest along canal 8/24/1916
- II - Hippocratea W. side Upper Gao 8/26/1916 V
- III - Umbellifer at tree near lake 8/26/1916 Blooms
- IV - " " " " " Along lake
- V - Farsetia annua L. S. of Inoue 8/27
- VI - Boltonia - high latitude 8/29

Planned to return back to Gao and the long train ride put off. However, we had to leave early the next day for a conference.

Indeed, the trees indicate that they would have been about 10 days old.

Hole decided to take 10 days when he got word of the rain and all the changes in the weather. So home

- (See last page in book)
- Mitchella repens*
- " *gracilis*
- Oenothera biennis*
- " *mucronata*
- Oxalis*
- "
- "
- Oxybaphus*
- Panicum capillare*
- "
- "
- Parthenium*
- Pentstemon*
- Physalis pedicularis*
- Plantago*
- "
- Poa*
- "
- Polygonia*
- "
- Potentilla*
- "
- Prunus*
- "
- Psoralea esculenta*
- Pycnanthemum*
- Quercus*
- Ranunculus*
- Rhus*
- Ribes glandulosum*
- Rosa*
- Rubus occidentalis*
- Rudbeckia hirta*
- Ruellia*
- Rumex*
- Saxifraga*
- Salvadora*
- Scrophularia lanceolata*
- Scutellaria*
- Senecio*
- "
- Silphium*

Silphium,
Sisyrinchium
Sisyrinchium
Thlaspium
Solanum

Solidago *aristata*
" *gigantea*
Specularia
Sphenopholis obtusata
Fragaria ananassa
Sporobolus

Stachys palustris
Strophocarpus
Synchoris calycos
Taenidia
Talinum
Tentillaria canadensis
Hylactrum
Trichosanthus

"
Grindelia

11

Veronica

"

Veronica
Viola

"

Kaanthus
grecus
Lysimachia
gigantea

Prairie Plants - for pickling.

Sept 17 R. Hanson
Cedilly trail 6 miles
Brookings

Asclepias sullivantii
Aster novae-angliae
" *oblongifolius*
Baptisia
Bouteloua oligostachya
Cacalia tuberosa
Carex festucacea
Cenchrus
Cirsium crathys
Crocosmia tripleuros
Cuscuta glomerata
Cyperus filicinus

Cyperus schweinitzii
Dalea emarginata
Equisetum
" *Erigeron divaricatus*
" *Philadelphia*
Euphorbia corollata
" *Fragaria vesca*
Gentiana virginianum
Gaura caroliniana
Hedysarum
Grindelia
Kellogia hispida
" *Perigrada*
Kelinium
Helianthus
" *Maximilian*
" *Thunbergii*
Hiracium

Dr. G. W. Boat
Peoples Gas Bldg.
Chicago, Ill.

Hediondium galbanum

Hypoxis

Kyphoxis

Iowa

Juncus

Koeleria

Krigia

Lactuca

"

"

Lappa

Lathyrus vernus

Lepidium sativum

Lepidium apetalum

Lithospermum gmelini

" gmelini

Lilium philadelphicum

Lilium canadense

Lilium columbianum

Lithospermum gmelini

Lobelia leptocephala

" *puberula*

Mollugo

Monarda fistulosa

Ralph Whittle

1326 Penn Ave

Des Moines

Iowa

Has oblong bill

Loes Paper

Done Only in

conservation

artificial flower

flowering stage

